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## **COLLECTING PLANTS**

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## THE CHICAGO ACADEMY OF SCIENCES

LINCOLN PARK: CHICAGO

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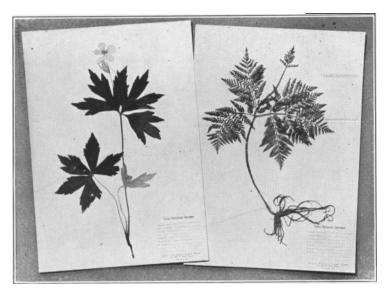
The collecting of plants is at once one of the most fascinating and one of the simplest of nature-hobbies. Relatively little equipment is absolutely necessary, although there are many things which facilitate collecting and mounting. The following are most important:

- 1. Trowel or pick to dig up the roots which are essential parts of each specimen.
- 2. Collecting can (or vasculum).
- 3. Plant press and driers.
- 4. Mounting sheets, gummed tape, labels, etc.
- 5. Folders or boxes.

In collecting, extreme care must be taken in obtaining good specimens, preferably in flower or fruit or, if possible, both. The root system, or at least part of it, should be taken for all plants which can be taken whole, and care should be given to take samples of terminal and inner leaves if they differ. Keep the plants moist and in good condition until you reach home to press them. Professional botanists often use a field press, but that is an added complication for the beginner.

The most important - and difficult part of making herbarium specimens - is the pressing, and the drying. Since the specimens will eventually be mounted on sheets  $11^{1}/_{2}$  x  $16^{1}/_{2}$  inches, the press and dryers should be but little larger than that size. Each plant should be carefully laid out on a folded sheet of unglazed paper (newspaper works very well); very thick branches must be cut in half to avoid excess thickness; long plants, like grasses, may be bent in the middle; and several individuals of very small plants may be placed in the same folder (and eventually mounted together). A field label giving date, locality, habitat, and preferably notes on abundance, flower color, etc., should be slipped into this folder. The folders are then placed between dryers or blotters and pressed. It is well to change the dryers several times, especially, for succulent plants, but the specimens should remain in the folders undisturbed. The quicker the drying process is carried on the more likely are the plants to retain their color. Corrogated card board placed between the dryers at intervals may be of considerable help, especially when the press is hung over a stove and warm air passes through the corrogations.

After the specimens are thoroughly dried, they should be identified and mounted. Standard sheets, used by botanists all over the world, measure  $11\frac{1}{2} \times 16^{1}/_{2}$  inches; other sizes should not be used. They should be of a good grade of bristol, which will not color with age. The specimen is laid on this sheet and fastened by narrow strips of gummed tape; museum mounts are generally glued on as well, but this may not be necessary for an amateur collection. A label in the lower right corner gives the name, date, locality and habitat, collector's name, arid any other information. A photograph of the specimen in its native environment is a desirable addition to the sheet.



TWO CORRECTLY MOUNTED HERBARIUM SPECIMENS

For protection and care in handling stiff manilla or bristle-board folders are used to separate genera - or in the case of large genera, groups of species. These may then be placed in boxes or storage cabinets which are easily made from cardboard or wood. For amateur collections of over a thousand specimens the large steel stationary storage cabinets for offices are cheap, and just the right size.

To avoid attack by insect pests, the specimens should be fumigated about four times a year with carbon bisulfide. An alternative which removes the necessity of using this unpleasant smelling chemical, is to paint the specimen before mounting, with a 10% solution of mercuric bichloride, a very deadly poison which must be carefully used.

This leaflet was prepared in conjuction with a temporary exhibit of botanical collecting material loaned by The General Biological Supply House, Inc., which also lent the cut of the two herbarium specimens.

